

PVC PIPE ASSOCIATION

UNI-BELL PVC PIPE ASSOCIATION | 201 E. JOHN CARPENTER FREEWAY, SUITE 750 | IRVING, TX 75062
WWW.UNI-BELL.ORG | P: 972.243.3902 | F: 972.243.3907

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Carolyn Hoskinson, Director
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Mail Code: 5301P
Washington, DC 20460
Hoskinson.Carolyn@epa.gov

Re: Center for Biological Diversity Consent Decree and 2014 RCRA Petition

Dear Director Hoskinson:

I am writing on behalf of the PVC Pipe Association (PVCPA), the non-profit trade association representing North America's PVC water and sewer pipe manufacturers. PVCPA is the authoritative source on PVC pipe and has served the engineering, regulatory, public health, and standardization communities since 1971. The PVC pipe industry contributes more than \$14 billion annually to the U.S. economy and supports over 25,000 jobs. With over two million miles in service, PVC pipe is the product of choice for buried water, sewer, drainage, and irrigation infrastructure.

The PVC pipe industry believes the Center for Biological Diversity (CBD) Petition to list PVC as hazardous waste is totally unwarranted and not supported by science. PVC piping products are safe during use and when discarded. PVC pipe is widely used to deliver drinking water consistent with federal and state regulations with compliance verified under an independent, third-party certification program administered by NSF International. Petitioner claims that PVC pipe suddenly becomes hazardous at the end of its useful life and is not fit to recycle or be managed as ordinary solid waste is patently false. PVC pipe is safe and completely recyclable.

Until the late 1980s, the Environmental Protection Agency (EPA) was responsible for testing and certifying the safety of materials used for both drinking water and wastewater pipes. Following a decision to no longer do this work, the EPA (through a regulatory process) passed the responsibility to NSF International. Since then, NSF has done all the testing and retesting of piping materials that go into water infrastructure projects. NSF ensures that drinking water pipes are safe and that all pipe materials are tested for safety. The materials are tested before the pipes are used commercially by subjecting them to multiple tests, including if the pipes leach chemicals or other substances into the water. Once the materials are certified, the testing does not stop. Testing of the pipes by NSF takes place throughout production. These audits are done randomly twice a year. NSF also ensures quality control tests are being done by the manufacturer.

PVC pipe is the most sustainable material with the lowest environmental impacts and embodied carbon of all underground piping in use today – all of which contributes to its health and safety profile. PVC is the only pipe material in North America to have undertaken a comprehensive, third-party Life Cycle Assessment (LCA) under the stringent guidelines of the International Organization for Standardization (ISO), which is recognized as the most reliable, transparent source of environmental industry standards in the world (see: [*Life Cycle Assessment of PVC Water and Sewer Pipe and Comparative Sustainability Analysis of Pipe Materials*](#)).

The results of the LCA study found that PVC piping systems have lower life cycle impacts than alternative materials, including ductile iron, high-density polyethylene (HDPE), and pre-stressed concrete cylinder pipe (PCCP). PVC pipes have reduced environmental effects due to lower embodied energy and longer service lives than other pipe materials. Additionally, the LCA corroborates the health and safety attributes of PVC pipe in the delivery of safe drinking water.

The Environmental Product Declaration (EPD) for PVC Water and Sewer Pipe, which complies with ISO 14025 standards and was independently certified by NSF International, also confirms the safety of PVC pipe. The EPD states: "No known chemicals are released into the water system. No known toxicity effects occur in the use of the product."

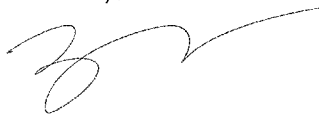
A recent report by the U.S. Conference of Mayors, Municipal Procurement: Competitive Bidding for Pipes Demonstrates Significant Local Cost-Savings, references the PVC pipe industry's LCA and EPA as industry best practices. The report validates current health and safety testing of PVC pipe and other materials: "There are many good resources that local officials can use to determine the safety of piping materials and whether or not they are appropriate for their specific project. These safety standards are based on data collected over long periods of time and are reliable."

Below is some additional technical information attesting to the safety of PVC pipe:

NSF International: Health Effects Monitoring of PVC Pipe and Fittings
PVC Pipe: Safe and Beneficial to Public Health
Best Practices for Environmental Evaluation of Water and Sewer Pipes
Leaching of Vinyl Chloride Monomer (VCM): Not An Issue for AWWA PVC Water Pipe
Organotin (Tin) Stabilizers: Not A Health Concern for PVC Pipe
PVC Water and Sewer Pipe: Lead-Free

All the scientific evidence and standards testing confirm that PVC pipe is beneficial to human health. PVC is one of the most researched and tested materials in the world used to carry potable water, and over 70 years of use have proven its safety and effectiveness. For these and many other reasons, EPA should deny the 2014 CBD Petition to regulate discarded polyvinyl chloride (PVC or vinyl) as hazardous waste.

Sincerely,



Bruce Hollands
Executive Director